

REMARKS

Claims 1-28 are pending. By this Amendment, claims 1, 10, 13 and 22 are amended for clarity.

Entry of the amendments to claims 1, 10, 13 and 22 is proper under 37 CFR §1.116 because the amendments: a) place the application in condition for allowance (for all the reasons discussed herein); b) do not raise any new issues requiring further search or consideration; and c) place the application in better form for appeal (if necessary). Accordingly, entry is proper under 37 CFR §1.116.

The Office Action rejects claims 9 and 21 under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed.

Claims 1 and 13 recite to "preventing said connection means from being touched so as to prevent a mechanical connection of said connection means from being released..." The Office Action apparently did not account for the complete limitation. Claims 9 and 21 recite that the connection means are touchable. This limitation is completely consistent with claim 1 and 13 because claims 1 and 13 require that the connection means are prevented from being releasable by the connection means/unit by being touched. Withdrawal of the rejection of claims 9 and 21 is respectfully solicited.

The Office Action rejects claims 1, 5, 9, 10, 12, 13, 17, 21, 22, 24, 25 and 27 under 35 U.S.C. §103 over Clark et al. (U.S. Patent No. 5,913,691) and Brown et al. (U.S. Patent No. 5,494,459) (Brown); claims 2, 6, 11, 14, 18 and 23 under 35 U.S.C. §103 over Clark and Brown in view of Heberlein et al. (U.S. Patent No. 6,361,356) (Heberlein); and claims 3, 4, 7, 8, 15, 16, 19, 20, 26 and 28 under 35 U.S.C. §103 over Clark and Brown in view of Heberlein and further in view of Saitoh et al. (U.S. Patent No. 5,274,722) (Saitoh). These rejections are respectfully traversed.

In connection with Clark, the Office Action asserts on page 3, "it is inherent that when the attaching means are detached that the electrical connection is changed to a disconnected state," citing col. 4, lines 50-55 and col. 5, lines 8-10 of Clark. However, Clark did not disclose changing, using a controller, a state of high-voltage supply to the connector when the attaching unit is detached. The Office Action assertion is merely stating that Clark's male and female connectors are disconnected when the cam lever and locking means are disengaged to disconnect the connector. But, claims 1 and 10 recite changing means for changing, using a controller, a state of high-voltage supply to a disconnected state; and claims 13 and 22 recite a changing unit changing, using a controller, a high-voltage supply state of the electrical connection between said high-voltage equipment and said connection unit to a disconnected state. Clark did not disclose or suggest the changing means recited in claims 1 and 10 or the changing unit recited in claims 13 and 22.

In particular, the changing means is recited in means-plus-function format and thus the structure disclosed in the specification should be compared against Clark. At page 10, line 31 - page 11, line 5, the specification discloses that CPU 1010 outputs high voltage power supply instructions to high-voltage interlock control circuit 1100 to shut off a high-voltage supply from the high-voltage power supply 1300. Thus, connectors 104 is disconnected from the high-voltage power supply when interlock signal line 110 becomes Hi level when safety bar 106 is detached by removing attachment bolts 116. (See generally pages 9-11 of the specification, for example.)

With respect to claims 13 and 22, Clark did not disclose a changing unit changing, using a controller, a high-voltage supply state of the electrical connection between the high-voltage equipment and the connection unit. Clark did not disclose any changing unit using a controller that changes a voltage supply state between a voltage supply source and the male and female connectors.

In view of the above, Clark did not disclose the changing means recited in claims 1 and 10 or the changing unit recited in claims 13 and 22. The changing means and/or the changing unit shuts off the high-voltage supply to the connection means or connection unit before the connecting means or connecting unit may be touched by removing the attaching means. Thus, the danger of electrical shock caused by touching a high-voltage connection can be prevented.

None of the other applied references: Brown, Heberlein and Saitoh (which is directed to plug-in type connector for optical fibers) disclose or suggest the changing means recited in claims 1 and 10 or the changing unit recited in claims 13 and 22. Thus, none of the other references supplied the subject matter lacking in Clark.

Claims 2-9, 25 and 26 depend from claim 1, claims 11 and 12 depend from claim 10, claims 14-21, 27 and 28 depend from claim 13 and claims 23 and 24 depend from claim 22. Thus, Clark and Brown did not disclose or suggest the subject matter recited in claims 1, 5, 9, 10, 12, 13, 17, 21, 22, 24, 25 and 27; Clark, Brown and Heberlein, individually or in combination, did not disclose or suggest the subject matter recited in claims 2, 6, 11, 14, 18 and 23; and Clark, Brown, Heberlein and Saitoh, individually or in combination, did not disclose the subject matter recited in claims 3, 4, 7, 8, 15, 16, 19, 20, 26 and 28. Withdrawal of the rejection of claims 1-28 under 35 U.S.C. §103 are respectfully solicited.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-28 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'James A. Oliff', is written over a horizontal line.

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